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EXAMINER

PILKINGTON, JAMES

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09/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|-------------------------------|---------------------------------|--|
| Office Action Summary | Application No. 10/820,424 | Applicant(s) DE JONGE ET AL. | |
| | Examiner James Pilkington | Art Unit 3682 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 16-18, 23-39, 51-74, 80-94 and 139-149 is/are pending in the application.
- 4a) Of the above claim(s) 8-11, 13, 16-18, 34, 28, 39, 61 and 70-74 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 80-84 is/are allowed.
- 6) ☒ Claim(s) 1-7, 12, 23-33, 35-37, 51-60, 62-69, 85-94 and 139-149 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 28 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 28 and 29 recite the limitation "said input member" in lines 3 and 4, respectively. There is insufficient antecedent basis for this limitation in the claim. In the Remarks page 23 filed September 10, 2007 the applicant states that claim 28 has been amended to correct for this particular problem but an amendment to claim 28 does not appear in the claims filed September 10, 2007.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 23, 26-30, 35-37; 51-57, 59, 85, 90-94, 139-145, and 148-149, are rejected under 35 U.S.C. 102(e) as being anticipated by Russell, US PGPub 2004/0244524 (filed April 15, 2003).

Re clms 1-6, 23, 26-30, 35-37, 51-57, 59, 85, 90-94, 139-145, and 148-149,
Russell discloses a shift assembly for controlling the transmission of a motor vehicle
comprising:

- a base (22) configured to be mounted to a motor vehicle, including a stop surface (12)
- a shift member (32) movably mounted to said base (22) and being movable to a plurality of discreet positions (park, reverse, drive etc.)
- a shift gate (34) fixed on the shift member (32) and having at least park, reverse and drive gear positions (paragraph 0027)
- a powered pawl mechanism (54/56) fixed to said base (22)
- said powered pawl having a movable pawl including a first member (58) and a pawl member (54) is resiliently and elastically (everything is elastic as it has some yield) connected to the first member (moves with 58), wherein the pawl member (54) is shiftable between an engaged position wherein said pawl engages a selected one of said gear positions of said shift gate (34) and at least partially restrains movement of the shift member, and a disengaged position wherein said pawl member (54) is disengaged from said shift gate
- said pawl member (54) is rotatable relative to the first member (58) (rotates about pin, see Figures 5-7)
- an input member/movable member (button on shift knob 48, Figure 4, or flow chart character 124) that translates linearly {clm 55} and wherein said

pawl mechanism includes a solenoid (56) that shifts said pawl member (54) into said disengaged position upon actuation of the switch (paragraph 0033)

- said shift gate (34) includes notches (52) forming said gear positions, each of said notches including a bottom surface and side surfaces (see Figure 5) that restrains movement of the shift lever (32) in at least a first direction when said pawl member is in said engaged position
- said solenoid (56, a solenoid uses magnets) is biased into said engaged position (biased by spring 98, spring biases links which bias solenoid pin 90)
- said shift lever (32) is pivotably mounted to said base (22) and pivots about a pivot axis (at 132)
- said pawl member (54) is configured such that it does not contact a bottom surface of said notches when in the engaged position (see Fig. 5)
- said shifter includes a controller that does not actuate said powered pawl when said shift lever is in said park position unless said controller determines that a key is in the ignition of the vehicle, and the brake pedal is depressed (Figure 8, paragraphs 0036-0040)
- a movable member/shift lever (32) generates a signal to said controller such that said controller can determine which input position said shift member is in and wherein said controller controls said powered pawl

based upon vehicle operating parameters (see Figure 8) and position of said shift member

- said movable member/shift lever (32/48) generates a signal proportional to the distance moved, said controller controls said powered pawl based on signal (switches 108 and 116)
- the controller controls the powered pawl based at least in part on the position of the movable member/lever button (48)
- a mechanical linkage (30) coupled to the lever (32)
- the pawl member is movable between three distinct positions (engaged, half way between engaged and disengaged, and disengaged or any position on the shift gate)
- a first battery (106, an alternator is a type of battery that acts to power the majority of the components when a car is running) forming a main vehicle power supply
- a second battery (104) forming a backup electrical power supply (when the vehicle is off and the main power supply system is not functioning)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Russell '524 in view of Ruitter, USP 5,220,984.

Russell discloses all of the claimed subject matter as described above. Russell also discloses that the shift gate (34) includes a notch forming a neutral position.

Russell does not disclose that the notch forming the reverse gear position is shaped to permit said pawl member to move into said neutral position by movement of said shift lever when said pawl member is in the engaged position, but prevents movement of said pawl member from said neutral position to said park position when said pawl member is in said engaged position.

Ruitter teaches that the notch forming the reverse gear position (R) is shaped to permit said pawl member to move into said neutral position by movement of said shift lever when said pawl member is in the engaged position, but prevents movement of said pawl member from said neutral position to said park position when said pawl member is in said engaged position (see Fig. 1) for the purpose of providing a shift lever that can not be moved into or out of the park position without applying the brake (solenoid does not work release pawl unless brake is depressed) (C1/L56-60).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Russell and provide for the notch forming the reverse gear position to be shaped to permit said pawl member to move into said neutral position by movement of said shift lever when said pawl member is in the engaged position, but prevents movement of said pawl member from said neutral position to said park position when said pawl member is in said engaged position, as

taught by Ruiter, for the purpose of providing a shift lever that can not be moved into or out of the park position without applying the brake.

6. Claims 12 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell '524 in view of Kito, USP 4,947,967.

Russell discloses all of the claimed subject matter as described above.

Russell does not disclose a manual release member operably connected to the pawl member when the button is at rest.

Kito teaches a manual release member (33) operably connected to the pawl member for the purpose of providing an override to the solenoid used to hold the pawl in the locked position (C7/L54-C8/L7).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Russell and provide a manual release member operably connected to the pawl member, as taught by Kito, for the purpose of providing an override to the solenoid used to hold the pawl in the locked position.

7. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Russell '524 in view of Kato, USP 6,679,809.

Russell discloses all of the claimed subject matter as described above.

Russell does not disclose that one of the vehicle operating parameters comprises the engine r.p.m. (speed).

Kato teaches a shift lever assembly wherein an engine revolution speed signal (e) is used to control the shifting of a lever to another gear (C3/L6-C4/L7) for the purpose of preventing careless operation of the shift knob and eliminating the possibility of jack-rabbit starts or hard braking (C3/L36-38).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Russell and provide a shift lever assembly wherein an engine revolution speed signal is used to control the shifting of a lever to another gear, as taught by Kato, for the purpose of preventing careless operation of the shift knob and eliminating the possibility of jack-rabbit starts or hard braking.

8. Claims 25, 146 and 147 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell '524 in view of Durieux, USP 6,059,687.

Re clms 25 and 146, Russell discloses all of the claimed subject matter as described above.

Russell does not disclose that one of the vehicle operating parameters comprises the vehicle speed.

Durieux teaches a shift lever assembly wherein the vehicle speed is used to control the shifting of a lever to another gear (C4/L21-27) for the purpose of preventing movement of the shift lever into the park position when the car is moving (C4/L21-27).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Russell and provide a shift lever assembly wherein the vehicle speed is used to control the shifting of a lever to another gear, as

taught by Durieux, for the purpose of preventing movement of the shift lever into the park position when the car is moving.

Re clm 147, Russell discloses the first position of the pawl comprises a retracted position (disengaged), the second position comprises an intermediate position (half-way between disengaged and engaged, the third position comprise an extended position (engaged).

9. Claims 31-33 and 86-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell '524 in view of Rossetti, USP 5,387,892.

Re clms, 31-33 and 86-87, Russell discloses all of the claimed subject matter as described above.

Russell does not disclose that the solenoid includes a spring biasing the movable/output member, that the magnet defines an attraction region and that the movable member is movable through a range of motion within said attraction region.

Rossetti teaches a solenoid (1) includes a spring (15) biasing the movable member (13) made of a polymer material (everything is a polymer, "made of natural or synthetic compounds" (Webster's II New Riverside Dictionary)), that the magnet (coil 7) defines an attraction region (8) and that the movable member (13) is movable through a range of motion within said attraction region (moves up and down in 8) for the purpose of providing a solenoid that cuts down on assembly time and cost (C1/L8-C2/L2).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Russell and provide a solenoid includes a

spring biasing the movable member, that the magnet defines an attraction region and that the movable member is movable through a range of motion within said attraction region, as taught by Rossetti, for the purpose of providing a solenoid that cuts down on assembly time and cost.

Re clm 88, Russell discloses that the shift member (32) is a shift lever rotatably mounted to the base (22).

Re clm 89, Russell discloses that the plurality of gear positions comprises park, neutral and drive (paragraph 0027).

10. Claims 60 and 62-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell '524 in view of Kito, USP 4,947,967.

Russell discloses:

- a base (22) configured to be mounted to a motor vehicle, including a stop surface (12)
- a shift member/lever (32) movably mounted to said base (22) and being movable to a plurality of discreet positions (park, reverse, drive etc.)
- a manually operable member (button) on the shift member (32) that is movable between a rest position and an actuating position
- a shift gate (34) fixed on the shift member (32) and having at least park, reverse and drive gear positions (paragraph 0027)
- a powered pawl mechanism (54/56) fixed to said base (22)

- said powered pawl (54/56) having a movable pawl including a first member (58) and a pawl member/engagement member (54) is resiliently connected to the first member (moves with 58), wherein the pawl member (54) is shiftable between an engaged position wherein said pawl engages a selected one of said gear positions of said shift gate (34) and at least partially restrains movement of the shift member, and a disengaged position wherein said pawl member (54) is disengaged from said shift gate
- wherein the pawl (54) is movable to a disengaged position when the manually operable member is in the actuating position (button is in pawl retracts)
- the powered pawl comprises a solenoid (56)
- at least one device (button on handle configured to generate a signal to a controller
- the plurality of gear positions comprises at least park, reverse, neutral and drive
- a mechanical linkage (30) coupled to the shift member (32)
- the pawl is biased into the engaged position by spring (98)

Russell does not disclose a manual release member operably connected to the pawl member.

Kito teaches a manual release member (33) operably connected to the pawl member for the purpose of providing an override to the solenoid used to hold the pawl in the locked position (C7/L54-C8/L7).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Russell and provide a manual release member operably connected to the pawl member, as taught by Kito, for the purpose of providing an override to the solenoid used to hold the pawl in the locked position.

Allowable Subject Matter

11. Claims 80-84 are allowed.

Response to Arguments

12. Applicant's arguments filed 9/10/07 have been fully considered but they are not persuasive.

13. The affidavit/declaration filed on September 10, 2007 under 37 CFR 1.131 has been considered but is ineffective to overcome the Russell '524 reference.

The evidence submitted is insufficient to establish diligence from a date prior to the date of reduction to practice of the Russell '524 reference to either a constructive reduction to practice or an actual reduction to practice. The affidavit does not establish diligence between the times of April 8, 2003 to May 6, 2003, see MPEP 715, 715.07(a). During this approximately 30 day period it is not known what was taking place with the invention. The applicant openly admits that the shifter was under going further development between the periods of April 14, 2003 and May 15, 2003 thus rendering it unclear when the device was truly reduced to practice, it appears the earliest possible reduction to practice date would be May 6, 2005 when sketches were forwarded to Mr. Kapteyn.

14. In response to applicants arguments (page 24 line 23 – page 25 line 7 and page 25 line 29 – page 26 line 16) directed to independent claims 23 and 51 it is the examiner's position that the independent claims do not recite what the "other" operating parameter is. Russell clearly does use another operation parameter labeled as "other" within Relay 1 and 2 in Figure 8. The examiner agrees that Russell does not disclose what the "other" is however claims 23 and 51 do not claim any particular "other."

15. The Applicant argues that Russell does not explicitly disclose a solenoid having a magnet (page 25 lines 8-28 and page 26 lines 16-25) and therefore cannot anticipate claims 30 and 85.

The Examiner disagrees and argues that a solenoid by definition does indeed use/include a magnet, whether that magnet is the pin, part of the housing or an addition member is not disclosed in the body of claims 30 and 85. A solenoid, as defined by Merriam-Webster's Collegiate Dictionary 10th ed., is a coil of wire usually in cylindrical form that when carrying a current acts like a magnet so that a movable core is moved. If the movable core is required to move in the current, in the case of Russell the pin is the core, it must have a magnetic charge thus rendering it a magnet. Since claims 30 and 85 do not claim any structural arrangement of the magnet relative to the pin or housing Russell's disclosure of a solenoid by definition incorporates a magnet.

16. The Applicant argues on page 26 line 26-page 27 line 17 that Russell does not disclose a pawl member that is resiliently coupled to the output member.

As boardly recited Russell does indeed disclose this limitation. All forms of connections have some resilience and elasticity. With out defining any structure of the resilient coupling in the body of the claim the limitation of "resiliently coupled" is indeed a board limitation which any type of connection would read upon. Since Russell discloses a connection between the pawl and the output member Russell does indeed anticipate this limitation of the claim.

17. Regarding the Applicant's argument directed to functional language in claim 90 (page 27-lines 18-28), the examiner argues that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" (see MPEP 2114). Since the language in question, page 27 lines 18-21, does not recite or imply any structure to differentiate the instant application over Russell, Russell does indeed anticipate all the structural limitations of the claim.

18. The applicant argues on page 28 lines 7-21 that Russell only discloses that the pawl member is movable between two positions and not first, second and third positions.

The examiner disagrees and argues that Russell does indeed disclose this limitation. Russell shows multiple recesses in the detent plate 34, each one of these recesses is indeed a different position for the pawl member therefore the pawl of

Russell is movable between first, second and third positions. If it is the applicants intent to argue that Russell doesn't show three positions that have different depths as that shown in Figure 10 of the instant application the examiner notes that the claim does not reflect that the positions have to have different depths or dimensions. Furthermore, if this is the applicant's intent Russell's pawl is indeed capable of being shifted and retained in three position, top, bottom and middle by adjusting a current in the solenoid. In addition the applicant has admitted that the distance the rod moves in a solenoid is dependent on the current and such solenoids were indeed known at the time of the invention (page 28-lines 12-15). Since no new structural limitations of the shifter are present in claim 139 it is the examiner's position that Russell does indeed meet this limitation.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Pilkington whose telephone number is (571) 272-5052. The examiner can normally be reached on Monday-Friday 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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9/20/07


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